RTF PROCEDURE CDMS 27 August 1998
S1-S6 OPERATION: BOARD # _____ STATUS _____ DATE _____

S1-S6 TESTING SET-UP:

The Operational test will utilize the RTF section of the Breakout Box (BOB) and a function generator.

The function generator will be connected to the Aux input on the BOB for each section of the test.

The testing will include a bandwidth, offset, noise, and fidelity test.

Making measurements: Measurements on the front panels are done with the scope input at 1M ohm DC. Measurements from the frequency generator are done with the scope input at 50 ohms DC.

1. **Initial Input Settings**:

Waveform:	Sine wave
Amplitude:	2V(p-p)
Frequency:	80 kHz

2. **Functionality Test:**

Select S1-S6 on BOB.
Look at each output from RTF board front panel using the oscilloscope.
OUTPUT SHOULD = INPUT (GAIN = 1)

3. **Measure Bandwidth:**
Increase input frequency to 250 kHz.
Output should track input with no phase lag.

Channel	Does gain = 1?	At 250 kHz is there a phase shift > 400 nSec?
S1	_____	_____
S2	_____	_____
S3	_____	_____
S4	_____	_____
S5	_____	_____
S6	_____	_____

4. **Offset / Noise / Fidelity:**

Ground Aux input -
Ensure that the scope ground is well known.
Now run through each channel to find the offset and noise.

Output should be < 10 mV of white noise.
The offset should be less than 5 mV. Find the offset by using your reference and the center of the fuzz.

Channel	Offset(mV)	Nosie(mV)
S1	_____	_____
S2	_____	_____
S3	_____	_____
S4	_____	_____
S5	_____	_____
S6	_____	_____

Fidelity-

Input 5V DC (from test points on the front panel of the CDMS power supply).
To the Aux input.

Use a volt meter with resolution to .001V to measure output..
Output should = Input to within +/- 0.01 V.

Channel	Output(V)
S1	_____
S2	_____
S3	_____
S4	_____
S5	_____
S6	_____